

WILLIAM CROSLAND

INAUGURAL
DISSERTATION
ON
INFLAMMATION
1824







An Inaugural Dissertation
On
Inflammation
Submitted to the consideration
of the
Rt Revd Jas Kemp D D. Provost
The Regents
& Medical Faculty
of the
University of Maryland
For the
Degree of Doctor of Medicine
By
William Grosvenor
of
South Carolina

March 28th A.D. 1824

in August 1864

Dear Sir

I have the honor to acknowledge

the receipt of

your letter of the 10th inst.

in relation to

the matter of the

same

and in reply to inform you

that the

same has been forwarded

to

the proper authorities

for

their consideration

I am, Sir, very respectfully,

In attempting the fulfilment of my duty
on the present occasion, I have chosen Inflam-
-mation as the subject of a few remarks.

It is not my intention however, to enter minute-
-ly into its treatment, but shall attend more
particularly to the illustration of the pathol-
-ogy of the disease, by which I mean an expla-
-nation of the manner in which its phenomena
are produced. But so far am I from intending
to offer any thing new on the subject that I
believe the profession have long since as-
-cended at the ne plus ultra in their investiga-
-tions of its nature. Inflammation in some form
or other is one of the most common diseases of
our country, indeed ours is the kind of clim-
-ate in which inflammatory diseases
are for the most part prevalent, for here
we are almost constantly exposed to one of
the most frequent causes—change of temperature



Perhaps the relaxing effects of our hot Sum^mers by producing increased excitability predisposes us to this disease.

Symptoms. "In inflam^mation, perhaps the first observable expression is that of redness: to that succeed tumefaction; pain; increase of heat; and augmented pulsation, rather of the parts falling into disease, than the parts chiefly occupied and congested. Or perhaps it would be more consecutive to observation, to assume that that these nosological signs in a given & relative degree are simultaneous." But it is evident, that there will be variations & addition of Sym^{ptoms}, according to the structure, or importance, of the part. For in erysipelas inflammation all the above characteristics are not so evident, and if an important viscus be attacked with only a slight inflam^mation, we have the characteristics of Cullen's Phlegmasia—

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Synocha fever; with inflammation or typical
pain; the function of some ^{being at the same time} internal part
injured. Here of course there would be an abatement
of symptoms: but as stated above it is the
signs of inflammation, which are evident
to the senses, which I am to investigate.

Cause— Any thing which will reduce the powers
of life in a set of vessels, thus producing a con-
-sequential yielding ^{of their coats} to the impetus of the
ordinary current, or vis a largo; will produce
inflammation. Under this head I include
all causes, Mechanical, Chemical, &c but shall
not enumerate them here, but proceed at
once with the pathology of the symptoms
of inflammation, & first of redness—
As observed above, the cause acts by opening the tone
of the vessels, & thus weakening their coats and
depriving from them the power to resist the
mass of blood sent on by the heart, this being

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The case, it follows of course that the vessels will be enlarged and distended with red blood, & in proportion to the quantity of blood in a part will ^{be} the redness, to a certain degree.

Tumefaction — two things conspire to cause tumefaction in an inflammation, first the affusion of the thin & colourless parts of the blood into the cellular substance, but as it has been ascertained by microscopic observation that the vessels of an inflamed part, are often enlarged to five or six times their natural size, it is evident that this will account for the greater part of the tumour.

Increased Heat — This is the symptom from which the disease took its name, & of course we should expect it to be one of its most constant characteristics. When we speak of increased heat we mean that the temperature of the part is higher than natural.

[illegible]

Or we mean the relative condition of
of the part spoken of, & that of the circumjacent
parts. I believe it will be admitted that the
blood is the medium through which heat is
distributed to the system, and of course it
follows that in proportion to the quantity
of blood in a part will be the temperature
of the part, in l^y from over distention the
circulation nearly or quite ceases in
the part, & then it changes colour becomes
cold & dies. To prove the above position still
farther it is only necessary to observe that
it is ~~in~~ the capillary vessels which are
inflamed, & in passing through them
the blood has its capacity for caloric
lessened, therefore heat is given out, &
increases the temperature of the tumour.
Another cause for the accumulation
of caloric is, that there is l^y of

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the caloric of the part lost by evaporation in consequence of the inability of the perspiratory functions of the part, as is the case with the whole surface in general fever. Pain — This is the symptom which attracts the attention of the patient more than any other one.

It is a fact that in proportion as the life of a part is lowered to a given degree, the sensibility & excitability is increased. now this is just the situation of the inflamed part, the cause lessens the vitality of the part, the nerves become more liable to receive impressions, while the enlarged & distended vessels press on & stretch them, thus producing the pain & tension.

The only symptom which remains to be spoken of is the increased pulsation

the course of the past year, the Commission
in consequence of the increase of the
number of petitions of the kind, and in
case with the whole subject in hand
at present, being - This is the situation
which almost the situation of the
the result the result of the
that more than any other
is a fact that in previous
the life of a party is known to a given
degree, the necessity of a resolution
increased, and in the present situation
of the interest of the party, the
the nature of the party, the
become more than in previous
the nature of the party, the
the nature of the party, the

which is evident both to patient & physician in and about the inflamed part. The pulsation of an artery is produced by the wave of blood passing through, & distending it, and the only action which the artery has is to resist the distending force of the blood; therefore if as has already been stated this power of resistance is ~~weakened~~ weakened, the wave will make a greater impression ~~on~~ on the finger apted to it. This being the case with a number of vessels in the neighbourhood gives the throbbing sensation which is more forcible in the part to the patient than is natural, from the increased sensibility of the nerves of the part — on the principle laid down I think

[illegible]

we can account for the various symptoms of inflammation in whatever part it may take place. As respects the fact that general fever is sometimes the consequence of a local inflammation there is some difference of opinion concerning the manner in which it is brought about. I believe it is by what is called sympathy, that is, the excitability of the part being morbidly increased makes an impression on the heart through the medium of the nerves, but this impression is first referred to the sensorium commune, & is reflected to the other parts of the system & produces a synocha fever &c.

Terminations — the most frequent terminations of inflammation are Resolution, Supuration, & Gangrene; writers have mentioned several others, but

The paper of the 1st of March 1848, contains
 a notice of a meeting of the friends of the
 cause of the oppressed, at the residence of
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I believe all that is usefull may be included under the three above mentioned heads; I shall therefore proceed to consider each seperately & at the same time the treatment proper for them, and first of Resolution. When with or without the use of remedies the symptoms of inflammation disappear & the part gradually returns to its former health & appearance, it is said that resolution has taken place. This is the termination which we should endeavor to bring about as long as we see that there is any probability of effecting it to do which we first weaken the vis a tergo by bleeding, purging, & low diet. Continued nausea has been recommended for the same purpose, but for the most part I should say that it is but a feeble means it may however be resorted to

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with advantage in some chronic
forms of inflammation.

our second indication is to empty the
vessels of their contents & cause them
to gather up, this we do by local blood-
-letting, & the application of such re-
-medies as will restore the tone of
the part: as stimulants, astringents.
the application of cold bodies for the
purpose of abstracting heat: and bar-
-daging if the part be such as to ad-
-mit of their application are in some
cases of great benefit, as in cases where
the inflammation has not been en-
-tirely dissipated & there is some hardness
& tumour remaining. in these cases
~~too~~ mercurial friction, is also, of great
service indeed mercury as an ant-
-clian to bleeding is one of our most

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useful remedies in inflammatory dis-
-cases, in such a case as that last mentioned
or rather that condition of parts it invigor-
-ates the parts & especially the absorbents &
- thus causes an absorption of whatever
can not be taken of by the blood vessels.

I will here also mention ^{Issues} ~~Scars~~ and Blisters; these may act
beneficially by the discharge which they
occasion, by stimulating the vessels of
the inflamed part through the sensorium
commune, for the impression being
reflected to the whole system, & meeting
with the weakened & excitable part, it
stimulates the vessels & causes them to
gather up: perhaps mercury may operate
in this way in producing its good effects.

There is an other means resorted to with great
advantage some times, when the system is

I will be as obedient as possible
 and strive to be
 perfectly by the rules of the
 society, by observing the rules of
 the society, and through the
 command for the improvement of
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mentioned. The proper position of the part; for instance if the leg be diseased it should be elevated to forty-five degrees, so that the specific gravity of the column of blood shall not oppose its return from the affected part.

When we discover that we can not effect a resolution & that Supuration will take place, which we know for the most part by the throbbing & rigours, we should then assist nature in her work by applying warm emollient poultices which favour the formation of matter. The treatment however depends somewhat according to the part affected.

When we see that gangrene ^{is} taking place, for we can discover a tendency to gangrene from the frequent pulse, together with the cha

and temperature which takes place in
the part, we can do no more than sup-
-port the system by Stimulants and
tonics; perhaps some application to
the part which would prevent the disagreeable
~~heat~~^{heat} which is the consequence of the gan-
-grene, would add ~~to~~ to the comfort
of both patient & attendants.

Having made these general observations I
have accomplished what I proposed to myself in en-
tering on this subject. Of its imperfections I am
fully sensible, at the same time I submit it
to your consideration cheerfully, as well from a
consciousness of having exerted myself in the
performance of my duty to the best of my ^{abilities} ~~abilities~~
as from a belief that the learned & honourable
body to whom it is addressed will not receive
it with rigid scrutiny—
all due respects—











